

# Recombinant human LTA/TNF-beta protein

Catalog Number: ATGP0517

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

35-205aa

### UniProt No.

P01374

### NCBI Accession No.

NP\_001153212

### Alternative Names

Lymphotoxin-alpha, LT-alpha, TNF-beta, Tumor necrosis factor ligand superfamily member 1, TNFB, TNFSF1, TNF superfamily, member 1

## PRODUCT SPECIFICATION

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### Molecular Weight

20.9 kDa (192aa) confirmed by MALDI-TOF

### Concentration

0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 30% glycerol, 0.1M NaCl, 1mM DTT

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cytotoxicity assay using L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 range  $\leq$  1ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

TNF beta, a member of the tumor necrosis factor family, is a cytokine produced by lymphocytes. The protein is highly inducible, secreted, and forms heterotrimers with lymphotoxin-beta which anchor lymphotoxin-alpha to the cell surface. This protein also mediates a large variety of inflammatory, immunostimulatory, and antiviral responses, is involved in the formation of secondary lymphoid organs during development and plays a role in apoptosis. Recombinant TNF beta protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

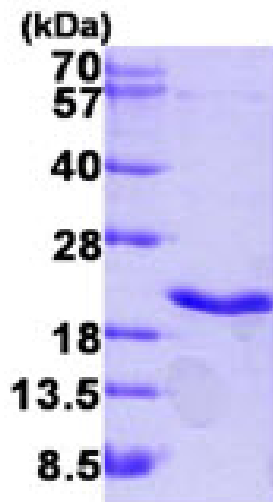
MGSSHHHHHH SGLVPRGSH MLPGVGLTPS AAQTARQHPK MHLAHSTLKP AAHLIGDPSK QNSLLWRANT DRAFLQDGFS  
LSNNSLLVPT SGIYFVYSQV VFSGKAYSPK ATSSPLYLAH EVQLFSSQYP FHVPLLSSQK MVYPGLQEPW LHSMYHGAAF  
QLTQGDQLST HTDGIPHLVL SPSTVFFGAF AL

### General References

Messer G, et al. (1991) *J Exp Med.* 173(1):209-19  
Banner DW, et al. (1993) *Cell.* 73(3):431-45.

## DATA

### SDS-PAGE



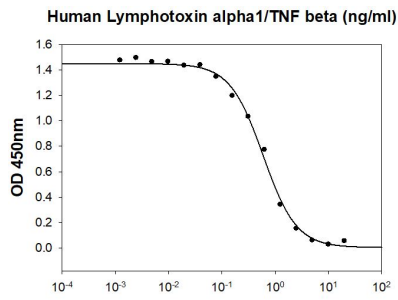
3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)

### Biological Activity

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Human TNF-beta induces cell cytotoxicity in the L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D.